

FEB 20 2007

BEST AVAILABLE COPYDOCKET NO. 05-03-004
SERIAL NO. 10/687,556
PATENT**IN THE CLAIMS:**

Following are the current claims. For the claims that have been marked as amended in this response, any differences in the claims below and the current state of the claims is unintentional and in the nature of a typographical error:

1. (Currently Amended) A method for object model processing, comprising:
generating a first view of an object model along a specified direction;
identifying first-view edges and first-view faces visible in the first view;
generating a second view, opposite of the first view;
identifying second-view edges and second-view faces visible in the second view; ~~and~~
assigning a region to each of the first-view edges, first-view faces, second-view edges,
and second-view faces; and
storing the assigned regions.
2. (Previously Presented) The method of claim 1, wherein the regions are assigned so that
if a face is a first-view face only, then it is assigned to a cavity face region;
if a face is a second-view face only, then it is assigned to a core face region;
if a face is a first-view face and a second-view face, then it is assigned to a crossover face
region;
if a face is not a first-view face and not a second-view face, then it is assigned to an
undercut face region;
if an edge is not a first-view edge and not a second-view edge, then it is assigned to an
undercut edge region; and
if an edge has two adjacent faces belonging to a cavity and a core face each, then it is
assigned to a parting edge region.

BEST AVAILABLE COPY

DOCKET NO. 05-03-004
SERIAL NO. 10/687,556
PATENT

3. (Previously Presented) The method of claim 1, further comprising identifying parting loops, including a parting line loop and patch loops, wherein parting loops are comprised of parting edges, and a parting line loop is defined as the parting loop with a maximum loop length against the specified direction, and all other loops are assigned as patch loops.
4. (Cancelled) ~~The method of claim 1, further comprising storing the assigned regions.~~
5. (Original) The method of claim 1, wherein the first view is a top view and the second view is a bottom view.
6. (Original) The method of claim 1, further comprising selecting an object model.
7. (Original) The method of claim 1, further comprising specifying a draw direction.
8. (Currently Amended) A data processing system having at least a processor and accessible memory, comprising:
means for generating a first view of an object model;
means for identifying first-view edges and first-view faces visible in the first view;
means for generating a second view, opposite of the first view;
means for identifying second-view edges and second-view faces visible in the second view; and
means for assigning a region to each of the first-view edges, first-view faces, second-view edges, and second-view faces; and
means for storing the assigned regions.

BEST AVAILABLE COPY

DOCKET No. 05-03-004
SERIAL No. 10/687,556
PATENT

9. (Previously Presented) The data processing system of claim 8, wherein the regions are assigned so that
- if a face is a first-view face only, then it is assigned to a cavity face region;
 - if a face is a second-view face only, then it is assigned to a core face region;
 - if a face is a first-view face and a second-view face, then it is assigned to a crossover face region;
 - if a face is not a first-view face and not a second-view face, then it is assigned to an undercut face region;
 - if an edge is not a first-view edge and not a second-view edge, then it is assigned to an undercut edge region; and
 - if an edge has two adjacent faces belonging to a cavity and a core face each, then it is assigned to a parting edge region.
10. (Previously Presented) The data processing system of claim 8, further comprising means for identifying parting loops, including a parting line loop and patch loops, wherein parting loops are comprised of parting edges, and a parting line loop is defined as the parting loop with a maximum loop length against the specified direction, and all other loops are assigned as patch loops.
11. (Cancelled) ~~The data processing system of claim 8, further comprising means for storing the assigned regions.~~
12. (Original) The data processing system of claim 8, wherein the first view is a top view and the second view is a bottom view.
13. (Original) The data processing system of claim 8, further comprising means for selecting an object model.
14. (Original) The data processing system of claim 8, further comprising means for specifying a draw direction.

BEST AVAILABLE COPY

DOCKET NO. 05-03-004
SERIAL NO. 10/687,556
PATENT

15. (Currently Amended) A computer program product tangibly embodied in a computer-readable medium, comprising:

instructions for generating a first view of an object model;
instructions for identifying first-view edges and first-view faces visible in the first view;
instructions for generating a second view, opposite of the first view;
instructions for identifying second-view edges and second-view faces visible in the second view; and
instructions for assigning a region to each of the first-view edges, first-view faces, second-view edges, and second-view faces; and
instructions for storing the assigned regions.

16. (Previously Presented) The computer program product of claim 15, wherein the regions are assigned so that

if a face is a first-view face only, then it is assigned to a cavity face region;
if a face is a second-view face only, then it is assigned to a core face region;
if a face is a first-view face and a second-view face, then it is assigned to a crossover face region;
if a face is not a first-view face and not a second-view face, then it is assigned to an undercut face region;
if an edge is not a first-view edge and not a second-view edge, then it is assigned to an undercut edge region; and
if an edge has two adjacent faces belonging to a cavity and a core face each, then it is assigned to a parting edge region.

17. (Previously Presented) The computer program product of claim 15, further comprising instructions for identifying parting loops, including a parting line loop and patch loops, wherein parting loops are comprised of parting edges, and a parting line loop is defined as the parting loop with a maximum loop length against the specified direction, and all other loops are assigned as patch loops.

BEST AVAILABLE COPY

DOCKET NO. 05-03-004
SERIAL NO. 10/687,556
PATENT

18. (Cancelled) ~~The computer program product of claim 15, further comprising instructions for storing the assigned regions.~~
19. (Original) The computer program product of claim 15, wherein the first view is a top view and the second view is a bottom view.
20. (Original) The computer program product of claim 15, further comprising instructions for selecting an object model.
21. (Original) The computer program product of claim 15, further comprising instructions for specifying a draw direction.